**IN THE CLAIMS:**

1. (CURRENTLY AMENDED) A method for reassembling a packet by a network device, the method comprising the steps of:

locating a fragment packet descriptor associated with the packet, the fragment packet descriptor including a pointer to an area of memory where data of a fragment is stored; and

placing the contents of the fragment packet descriptor in a packet descriptor associated with the packet, the packet descriptor descriptive of the entire packet.

2. (ORIGINAL) The method of claim 1 wherein the step of locating a fragment packet descriptor associated with the packet further comprises:

locating an entry in a reassembly table associated with the packet; and

dereferencing a pointer held in the entry to locate the fragment packet descriptor.

3. (ORIGINAL) The method of claim 1 further comprising the steps of:

receiving a request to reassemble the packet.

4. (ORIGINAL) The method of claim 3 wherein the request comprises:

an index to an entry in a reassembly table that is associated with the first fragment of the packet; and

a length value that is a count of the total number of entries in the reassembly table that are associated with the packet.

5. (ORIGINAL) The method of claim 1 further comprising the step of:

deallocating the fragment packet descriptor.

6. (CURRENTLY AMENDED) A computer readable medium that includes computer executable instructions for reassembling a packet, the computer executable instructions comprising instructions configured to: ~~performing the method recited in claim 1.~~

locate a fragment packet descriptor associated with the packet, the fragment packet descriptor including a pointer to an area of memory where data of a fragment is stored; and

place the contents of the fragment packet descriptor in a packet descriptor associated with the packet, the packet descriptor descriptive of the entire packet.

7. (ORIGINAL) An apparatus for reassembling a packet, the apparatus comprising:

means for locating a fragment packet descriptor associated with the packet, the fragment packet descriptor including a pointer to an area of memory where data of a fragment is stored; and

means for placing the contents of the fragment packet descriptor in a packet descriptor associated with the packet, the packet descriptor descriptive of the entire packet.

8. (ORIGINAL) The apparatus of claim 7 further comprising:

means for locating an entry in a reassembly table associated with the packet; and

means for dereferencing a pointer held in the entry to locate the fragment packet descriptor.

9. (ORIGINAL) The apparatus of claim 7 further comprising:

means for receiving a request to reassemble the packet.

10. (ORIGINAL) The apparatus of claim 7 further comprising:

means for deallocating the fragment packet descriptor.

11. (CURRENTLY AMENDED) A method for reassembling a packet by a network device, the method comprising the steps of:

receiving a plurality of fragments associated with the packet;

determining if all the fragments for the packet have been received; and

issuing a request to reassemble the packet to a reassembly assist function if all the fragments for the packet have been received.

12. (ORIGINAL) The method of claim 11 wherein the request comprises:

an index to an entry in a reassembly table that is associated with the first fragment of the packet; and

a length value that is a count of the total number of entries in the reassembly table that are associated with the packet.

13. (ORIGINAL) The method of claim 11 wherein the step of determining if all fragments for the packet have been received further comprising:

examining a bit map that indicates whether or not the fragments have been received.

14. (ORIGINAL) The method of claim 11 further comprising the step of:

tracking a fragment of the packet.

15. (ORIGINAL) The method of claim 14 wherein the step of tracking a fragment of the packet further comprising the steps of:

keeping a copy of a packet handle associated with the fragment in a reassembly table; and

maintaining a location in a bit map that indicates whether or not the fragment has been received.

16. (ORIGINAL) A computer readable medium containing computer executable instructions for reassembling a packet, the computer executable instructions comprising instructions configured to: ~~performing the method recited in claim 11.~~

receive a plurality of fragments associated with the packet;

determine if all the fragments for the packet have been received; and

issue a request to reassemble the packet to a reassembly assist function if all the fragments for the packet have been received.

17. (CURRENTLY AMENDED) An apparatus for reassembling a packet, the apparatus comprising:

means for receiving a plurality of fragments associated with the packet;

means for determining if all the fragments for the packet have been received; and

means for issuing a request to reassemble the packet to a reassembly assist function if all the fragments for the packet have been received.

18. (ORIGINAL) The apparatus of claim 17 further comprising:

means for examining a bit map that indicates whether or not the fragments have been received.

19. (ORIGINAL) The apparatus of claim 17 further comprising:

means for tracking a fragment of the packet.

20. (ORIGINAL) The apparatus of claim 19 further comprising:

means for keeping a copy of a packet handle associated with the fragment in a reassembly table; and

means for maintaining a location in a bit map that indicates whether or not the fragment has been received.

21. (CURRENTLY AMENDED) A system for reassembling a packet, the system comprising:

a processor; and

a reassembly assist configured to communicate with the processor;

whereby the processor receives a plurality of fragments associated with the packet, determines if all the fragments for the packet have been received and issues a request to reassemble the packet to the reassembly assist to reassemble the packet.

22. (PREVIOUSLY PRESENTED) A method for reassembling a packet, the method comprising the steps of:

receiving a fragment packet having a fragment packet descriptor associated therewith;

placing the contents of the fragment packet descriptor in a reassembly table associated with the packet; and

in response to receiving all the fragments for the packet, issuing a request to a reassembly assist function.

23. (PREVIOUSLY PRESENTED) The method of claim 22, further comprising the step of:

determining if all fragments have been received.

24. (CURRENTLY AMENDED) A network device for reassembling a packet, comprising:

means for receiving a fragment packet having a fragment packet descriptor associated therewith;

means for placing the contents of the fragment packet descriptor in a reassembly table associated with the packet; and

~~in response to receiving all the fragments for the packet,~~ means for issuing a request to a reassembly assist function, in response to receiving all the fragments for the packet.

25. (PREVIOUSLY PRESENTED) The apparatus of claim 24, further comprising:

means for determining if all fragments have been received.

26. (PREVIOUSLY PRESENTED) A system for reassembling a packet, comprising:

a processor receives a fragment packet having a fragment packet descriptor associated therewith;

a reassembly assist configured to communicate with the processor, the reassembly assist adapted to locate the fragment packet descriptor associated with the packet;

the processor configured to store a reassembly table, the reassembly table storing the contents of the fragment packet descriptor in a packet descriptor; and

in response to receiving all the fragments for the packet, the processor issues a request to a reassembly assist function.

27. (PREVIOUSLY PRESENTED) The method of claim 26, further comprising the step of:

the reassembly assist determines if all fragments have been received.

28. (CANCELLED)

29. (PREVIOUSLY PRESENTED) A computer readable media, comprising:

said computer readable media having instructions written thereon for execution on a processor for the practice of reassembling a packet, comprising,

receiving a fragment packet having a fragment packet descriptor associated therewith;

placing the contents of the fragment packet descriptor ~~in a packet descriptor~~ in a reassembly table associated with the packet; and

in response to receiving all the fragments for the packet, issuing a request to a reassembly assist function.

30. (PREVIOUSLY PRESENTED) A method for reassembling a packet, the method comprising the steps of:

receiving a fragment packet having a fragment packet descriptor associated therewith;

placing the contents of the fragment packet descriptor in a reassembly table associated with the packet; and

in response to receiving all the fragments for the packet, issuing a request to a reassembly assist function; the reassembly function:

locating fragments in a fragment packet descriptor, and

reassembling the packet in response to a pointer in the reassembly table.

31. (NEW) The method of claim 1, wherein the steps of locating and placing are performed by a reassembly assist function that operates autonomously from a packet processor of the network device.